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PUBLIC SEWAGE TREATMENT PLANT CONSTRUCTION, 1955

Public Health Service
Washington, D. C.

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PUBLIC HEALTH SERVICE
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PUBLIC SEWAGE TREATMENT PLANT CONSTRUCTION - 1955

Introduction

The Presidential Advisory Committee on Water Resources Policy, in its report in December 1955, stressed the need for reducing pollution. Indeed, every national study in recent years concerning water resources has called for more effective pollution control.

Water pollution is a growing problem because the Nation is growing. It is quite likely that within the next twenty years the total demand for water will have doubled. Already there are 66 critical or near critical water-short areas in the United States. These will grow in size and number as water requirements increase. Pollution control is an essential element of the national conservation effort needed to meet these deficiencies.

The construction of sewage treatment plants and other sewerage projects as determined from construction contracts awarded during the year by the Nation's municipalities is one index of progress in pollution control. Although the number and cost of the contract awards does not represent actual construction put-in-place, it does provide a comparison from year to year of progress made in providing treatment facilities necessary to lower the backlog of needed construction, to replace obsolete facilities, and to satisfy the requirements of increasing urban population.

Contracts Awarded - 1955

Contracts amounting to $200.9 million for 749 sewage treatment plants, including in many places interceptor sewers, were awarded by the Nation's municipalities* during the year. Of this total, contracts for $86.8 million were awarded for 371 new sewage treatment plants. While the number of new plants is about the same as last year, the dollar volume is considerably less. In addition, there

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* Includes incorporated or unincorporated municipalities; other legal bodies as sanitary districts, counties, towns; significant institutions, resorts, recreational centers, or other population centers, and industries discharging sanitary sewage wastes directly to watercourse.

TABLE I

SEWERAGE CONSTRUCTION-CONTRACT AWARDS 1955
by DRAINAGE BASIN & TYPE OF CONSTRUCTION
(All costs in thousands of $)

DRAINAGE BASIN	Total		New Plants		Other Projects*	
	No.	Cost	No.	Cost	No.	Cost
UNITED STATES	749	$200,862	371	$86,822	378	$114,040
Northeast	52	10,526	17	3,660	35	6,865
North Atlantic	111	43,353	41	15,490	70	27,863
Southeast	61	17,703	27	7,427	34	10,276
Tennessee	12	7,257	7	2,216	5	5,041
Ohio	99	38,070	45	21,586	54	16,485
Lake Erie	10	5,962	6	1,891	4	4,070
Western Great Lakes	33	19,458	12	2,447	21	17,011
Upper Mississippi	101	22,447	51	9,920	50	12,526
Missouri	71	6,434	55	3,421	16	3,012
Southwest Lower Miss.	68	8,347	43	5,236	25	3,111
Western Gulf	21	3,819	7	542	14	3,277
Colorado	17	2,335	12	1,535	5	780
Great Basin	11	1,649	8	1,257	3	392
California	54	11,427	22	8,522	32	2,905
Pacific Northwest	28	2,078	18	1,672	10	405

* Interceptors, outfalls; and additions, enlargements, and alterations to plants, etc.

were 378 contracts awarded for $114.1 million for the construction of related projects, such as outfall and interceptor sewers and enlargements and alterations of existing plants. Sanitary collecting sewers and storm sewers are not included in the report since their construction does not represent a reduction in pollution to natural water courses.

Table I shows the number and type of construction projects for which contracts were awarded in 1955, in each of the Nation's 15 major drainage basin areas.

As in the three previous years, the greatest number of projects and the largest dollar amount occurred in the North Atlantic Basin. However, the amount of money involved in contracts awarded in this Basin in 1955 was less than half that in 1954. In 1954 two very large projects, out of a total of 130 in the Basin, accounted for almost half the entire dollar amount.

Table II shows also that construction is following the same general trend as in the last three years. Most of the projects are in the smaller communities while almost the same amount of money is spent in each population group served.

TABLE II

SEWERAGE CONSTRUCTION-CONTRACT AWARDS - 1955

by POPULATION GROUPS & TYPE OF CONSTRUCTION
(All costs in thousands of $)

POPULATION SERVED GROUPS	TOTAL For Range No.	TOTAL For Range Cost	TOTAL Cumulative % No.%	TOTAL Cumulative % Cost%	NEW PLANTS For Range No.	NEW PLANTS For Range Cost	NEW PLANTS Cumulative % No.%	NEW PLANTS Cumulative % Cost %	OTHER PROJECTS* For Range No.	OTHER PROJECTS* For Range Cost	OTHER PROJECTS* Cumulative % No.%	OTHER PROJECTS* Cumulative % Cost%
TOTAL	749	200,862			371	86,822			378	114,040		
Less than 2,500	310	24,075	41	12	218	15,967	59	18	92	8,109	24	7
2,500-5,000	117	19,392	57	22	62	11,204	75	31	55	8,188	39	1'
5,000-10,000	89	20,932	69	32	39	13,224	86	47	50	7,708	52	21
10,000-25,000	76	33,083	79	49	30	19,967	94	70	46	13,116	64	33
25,000-50,000	48	21,281	85	59	13	12,611	98	84	35	8,669	74	40
50,000-100,000	36	33,424	90	76	4	6,315	99	91	32	27,110	82	64
100,000-250,000	21	19,921	93	86	4	5,873	100	98	17	14,048	87	76
250,000-500,000	21	9,354	96	90	0	0	100	98	21	9,354	92	84
500,000-1,000,000	7	3,754	97	92	1	1,662	100	100	6	2,092	94	86
1,000,000 or over	24	15,646	100	100	0	0	100	100	24	15,646	100	100

*Interceptors, outfalls; and additions, enlargements, and alterations to plants, etc.

Construction Record 1948-1955

To provide a comparison between the value of the contracts awarded during 1955 and previous years, all costs in Table III have been adjusted in terms of 1950 dollars. The table shows that not only was the amount awarded in 1955 less than in 1954, but also that it was less than the average of the last eight years. Another factor to be considered is the fact that previously built treatment plants are becoming obsolete. Progressively larger expenditures will be necessary in the years ahead to offset this obsolescence and at the same time provide adequate treatment for additional wastes resulting from increased population.

TABLE III

SEWERAGE CONSTRUCTION - CONTRACT AWARDS

1948-1955

YEAR	CONTRACT AWARD VALUE ACTUAL DOLLARS (Millions)	1950 DOLLARS** (Millions)
1948	158*	175
1949	180*	194
1950	203*	203
1951	177*	168
1952	137	123
1953	191	162
1954	228	196
1955	201	156
	Total =	1,377
	Average =	172

*Based on records maintained by U. S. Department of Commerce, Facilities and Construction Bureau.

**Engineering News Record Construction Cost Index used to translate actual dollar value to 1950 dollars.

The basic data upon which this report is based were obtained from:

(a) F. W. Dodge Corporation daily reports on sewage treatment plant and interceptor sewer contract awards in 37 eastern States.

(b) Construction news periodicals, such as the Pacific Builder and Architect, Rocky Mountain Construction News Bulletin, Southwest Builder and Contractor.

A list of projects for each State was compiled and sent to the State water pollution control authority for examination, correction and return.

References

(1) Public Sewage Treatment Plant Construction 1952, PHS Pub. 291

(2) Public Sewage Treatment Plant Construction 1953, PHS Pub. 409

(3) Public Sewage Treatment Plant Construction 19 4, PHS Pub. 453

(4) Water Pollution in the United States, PHS Pub. 64 (1951)

(5) Summary Reports on Water Pollution for the 15 Major Drainage Basins:

California Drainage Basin, PHS Pub. 86
Colorado River Drainage Basin, PHS Pub. 110
Great Basin Drainage Basin, PHS Pub. 82
Lake Erie Drainage Basin, PHS Pub. 119
Missouri River Drainage Basin, PHS Pub. 78
New England Drainage Basin, PHS Pub. 88
North Atlantic Drainage Basins, PHS Pub. 111
Ohio River Drainage Basin, PHS Pub. 136
Pacific Northwest Drainage Basin, PHS Pub. 87
Southeast Drainage Basins, PHS Pub. 153
Southwest-Lower Mississippi Drainage Basins, PHS Pub. 160
Tennessee River Drainage Basin, PHS Pub. 69
Upper Mississippi Drainage Basins, PHS Pub. 150
Western Great Lakes Drainage Basins, PHS Pub. 143
Western Gulf Drainage Basins, PHS Pub. 92

References (Cont'd)

(6) Popular Digests of Summary Reports for 9 Basins:

Clean Water in the Arkansas-White-Red and Lower Mississippi Valleys, PHS Pub. 252
From the Hudson to the Potomac - Clean Waters, PHS Pub. 202
Clean Water in the Missouri, PHS Pub. 151
Clean Water for New England, PHS Pub. 199
Cleaner Water for the Ohio, PHS Pub. 203
Clean Water for the Pacific Northwest, PHS Pub. 201
Clean Water for the South, PHS Pub. 259
Clean Water for the Tennessee, PHS Pub. 271
Clean Water for the Western Great Lakes Region, PHS Pub. 267

(7) Comprehensive Program Documents:

Central Columbia River Basin, PHS Pub. 381
Green Bay Western Shore Drainage Basin, PHS Pub. 368
Humboldt River and Central Nevada Basins, PHS Pub. 294
Lake Superior Drainage Basin, PHS Pub. 367
Lower Portion Upper Mississippi River Basin, PHS Pub. 450
Minnesota River Basin, PHS Pub. 365
Mississippi-Des Moines-Skunk Rivers Basin, PHS Pub. 314
Mississippi-Iowa-Cedar Rivers Basin, PHS Pub. 346
Mississippi-Salt Rivers Basin, PHS Pub. 366
Mississippi-Wapsipinicon & Tributaries Rivers Basin, PHS Pub. 347
Missouri Drainage Basin, PHS Pub. 317
Rainy River Basin, PHS Pub. 380
Red River of the North Basin, PHS Pub. 293
St. Croix River Basin, PHS Pub. 335
Yakima River Basin, PHS Pub. 292

SEWAGE TREATMENT PLANT CONSTRUCTION CONTRACTS AWARDED DURING THE YEAR 1955

STATE AND PLACE**	TYPE OF CONSTRUCTION	COST
ALABAMA		
Alexander City	New Plant	$ 31,242
Birmingham	New Plant	1,495,746
Mobile	Interceptor	1,469,099
Mobile County	Outfall	77,200
Montgomery	Outfall Ext.	338,271
ARIZONA		
Prescott	New Plant	191,818
Yuma	Interceptor	325,764
ARKANSAS		
Blytheville	Plant Extn.	327,338
De Witt	New Plant	66,000
El Dorado-Murmill Hts. Addn.	New Plant	30,000
Little Rock-Meadowcliffe Addn.	New Plant	28,000
Luxora	Outfall	20,000
Marion	New Plant	35,000
CALIFORNIA		
Anaheim	Interceptors	382,815
Blue Lake	New Plant	142,424
Buena Park	Outfall	54,119
Buena Park	Outfall	27,906
Edgemoor Farm Santee (San Diego Co.)	New Plant	65,237
Fairview State Hosp.	Outfall	82,663
Fresno County	New Plant	149,800
Gardenland- S. D. #7	New Plant	304,335
Glendale-Lincoln School	Improvements	4,932
Ione	New Plant	44,979
Isleton	New Plant	100,000***
Las Gallinas Valley S. D.	New Plant	146,430
Los Angeles	Interceptors	82,655
Los Angeles S.D.#2	Improvements	89,800
Los Angeles S.D.#5	Improvements	65,668
Los Angeles S.D.#21	Interceptor	38,282
Los Angeles S.D.#22	Interceptor	232,040
Los Angeles	Interceptor	116,473
Los Angeles Co.S.D.#2	Outfall "A"	109,413
Los Angeles Co.S.D.#2	Outfall "C"	97,520
Manlove Sewer Assessment Dist.	New Plant	92,450
Marin Co.S.D.#6 Novato	New Plant	324,500
Marin Co.S.D.#6 Novato	Outfall	247,880
Modesto	New Plant	448,200
North Of The River S.D. #1	New Plant	411,650
CALIFORNIA (Cont.)		
Olivehurst	New Plant	$ 396,116
Olivehurst	Outfall	162,294
Ontario	Improvements	20,602
Oxnard	New Plant	428,760
Palm City	New Plant	191,569
Patton State Hosp.	Improvements	19,800
Pinole	New Plant	225,000
Port Hueneme S.D.	Outfall	120,000
Rancho Cordova Maint. Dist.	New Plant	181,276
Rialto	New Plant	294,196
Rio Linda Co. W.D.	New Plant	119,000
Riverside Co.- Thermal Air Base	Improvements	6,325
Sacramento Co.	Plant & Pump Sta.	378,527
San Carlos-Belmont	Outfall Improvements	27,792
San Diego	Outfall	11,859
San Francisco International Airport	New Plant	308,405
San Jose	New Plant	2,774,774
San Rafael S.D.	Outfall Impvts.	24,000
Santa Maria	Improvements	7,929
Santa Paula	Enlargements	106,550
Soledad	Improvements	59,212
Sunnyvale	New Plant	994,300
Sweetwater- Union High School Chula Vista	Improvements	22,668
Union S.D. (Centerville)	Addition Plant	89,280
COLORADO		
Alamosa	Lagoon	30,000
Altura S. D.	Lagoon	15,000***
Brighton (Sheraton Park)	Addition Plant	6,600
Broomfield Heights	New Plant	118,000
Fountain	Lagoon	15,000***
Greeley	Addn.& Impvts.	420,424
Keensburg	Improvement	14,513
Lakewood	New Plant	76,000
Norwood	Lagoon	6,000***
Nucla	New Plant	20,000
Rifle	Replacement	50,000
Security	New Plant	80,000
Strasburg S. D.	Lagoon	7,000***
CONNECTICUT		
Darien	Plant Alterations	150,067
Hartford & Windsor	Interceptor	179,571

STATE AND PLACE**	TYPE OF CONSTRUCTION	COST
CONNECTICUT (Cont.)		
New Haven	Improvements	$ 3,225
Prospect School	New Plant	8,000
Torrington	Improvements	1,486
Torrington	Plant Repairs	20,000
West Hartford	Interceptor	64,069
Windsor	Outfall repair	11,900
Winsted	Plant Repairs	38,025
DELAWARE		
Christiana Hundred	Interceptors	54,328
Milford	New Plant	246,500
Mill Creek Interceptor (New Castle Co.)	Interceptor	112,460
Newark	Interceptor	29,198
Smyrna	New Plant	137,130
Smyrna	Interceptor	42,000
FLORIDA		
Arcadia-Mental Hosp.	Plant Replacement	132,676
Auburndale	New Plant	146,500
Bradenton (Trailer Estates)	New Plant	81,000***
Chattahoochee	New Plant	100,000***
Daytona Beach	Improvements	126,288
Deland	Enlargement	166,175
Duval County	New Plant	68,604
Fort Walton	New Plant	228,910
Green Cove Springs U.S.N. Installation	Improvements	9,585
Haines City	Plant Improvements	40,000
Leesburg	Replacement	165,000
Marianna	Plant Additions	47,175
Mulberry	Replacement	137,600***
North Bay Village	New Plant	228,173
North Miami	New Plant	674,415
Ocala	Plant Improvements	392,000
Orange Co.-Pinecastle Air Force Base	Improvements	30,202
Orange Co.-Pine Hills S. D.	Additions	120,000***
Punta Gorda	Enlargements	82,750
ST.Petersburg	New Plant	407,800
St.Petersburg	Interceptors & Outfall	1,246,410
St. Petersburg	New Plant	482,000
St. Petersburg	New Plant	762,752
St. Petersburg	Outfall	81,500
Safety Harbor	New Plant	116,457
Stuart	New Plant	129,736

STATE AND PLACE**	TYPE OF CONSTRUCTION	COST
GEORGIA		
Atlanta	Outfall	$ 169,480
Atlanta-Ben Hill Area	Outfall	49,558
Atlanta-Sandy Creek Plant	Improvements	168,125
Atlanta	Outfall	46,186
Austell	New Plant	132,602
Cobb County	New Plant	219,310
Gainesville	New Plant	644,618
Gainesville	Interceptor & Outfall	405,360
Jasper	New Plant	19,500
Marietta	New Plant	264,060
Warrenton	New Plant	78,258
IDAHO		
Boise	Interceptor	31,082
Pierce	New Plant	23,000
ILLINOIS		
Augusta	New Plant	25,000***
Aurora S.D.	Additions	146,515
Barrington	Addition	150,000
Bradley	New Plant	235,655***
Bradley	Interceptors	117,827***
Calumet City-Harvey & Thornton Twp.	Interceptors	1,263,005
Camp Point	New Plant	23,800
Carbondale	Improvements	10,144
Champaign	New Plant	104,000
Champaign	Interceptor Sta.	23,082
Champaign	Interceptors	70,000
Cook Co.-S.D.Chicago	Interceptors	1,368,740
Crete	New Plant	93,954
Decatur	Interceptors	619,596
Deerfield	New Plant	366,171
Downers Grove	New Plant	589,859
Downers Grove	Outfall	272,946
Edwardsville	Improvements	59,724
Elgin	Interceptors	88,769
Elmwood	New Plant	97,207
Germantown	New Plant	46,450
Hampshire	New Plant	106,754
Harwood Hts.-Norwood Park Twp.	Interceptor	334,000
Homewood	New Plant	539,000
Homewood	Interceptors	99,997
Joliet	New Plant	1,425,500
Joliet	Interceptors	424,819
Lake Bluff-Lake Forest-Highland Park	Improvements	631,800

STATE AND PLACE**	TYPE OF CONSTRUCTION	COST
ILLINOIS (Cont.)		
Lombard	New Plant	$ 393,471
Mattoon	Additions	1,079,403
Miles Main & Northfield (Cook Co.)	Interceptor extn.	457,910
Morton Grove	Interceptor	1,176,390
New Baden	New Plant	225,501
Oak Grove Park	New Plant	27,000
Oglesby	New Plant	230,830
Oglesby	Interceptors	88,461
Olympia Fields	New Plant	57,594
Robinson	Alterations	96,000
Roseville	New Plant	39,000
South Beloit	New Plant	149,500
Springfield (L.Springfield Plant)	Addition	32,187
Spring Valley	Interceptor	33,715
Stillman Valley	New Plant	42,000
Streator	New Plant	564,948
Streator	Interceptors	479,159
Vienna	New Plant	79,506
INDIANA		
Bloomington	Enlargements	872,000
Bloomington	Interceptors & lift Sta.	700,000
Boonville	New Plant	482,933
Butler	New Plant	166,000
Charlestown	Improvements	6,582
Connersville	New Plant	1,192,000
Connersville	Interceptors	2,788,000
Evansville	Interceptor & lift sta.	141,508
Frankfort	Enlargement	493,000
Fort Benjamin Harrison	Improvement	64,500
Garrett	New Plant	290,482
Gary	Interceptors	2,094,707
Indianapolis	Improvements	2,638,988
Madison	Enlargement	176,000
Madison	Outfall & Interceptor	261,500
Madison Co.- Forest Hills Addn.	New Plant	69,952
Madison State Hosp.	New Plant	226,000
Michigan City	Enlargement	785,000
Mt. Vernon	New Plant	325,610
Mt. Vernon	Interceptor	369,907
New Whiteland	New Plant	59,308
New Whiteland	Outfall	7,478

STATE AND PLACE**	TYPE OF CONSTRUCTION	COST
IOWA		
Ackley	Impvts.&Addns.	$ 67,596
Atlantic	Interceptor	28,616
Cedar Rapids	Addition	909,914
Cedar Rapids-College Twp. School	New Plant	19,030
Cresco	Enlargement	101,800
Dayton	Replacement	62,430
Des Moines-Benton Sub-Div.	New Plant	65,000***
Des Moines-Highland Hills	Replacement	50,000***
Hampton	Enlargement	193,115
Hudson	Improvements	73,360
Independence-Iowa State Institution	Enlargement	84,750
Lowden	New Plant	59,350
Mitchellville	New Plant	65,034
Mount Pleasant-Iowa State Institution	Enlargement	107,529
Oakdale-State Institution	Enlargement	42,316
Osage	Improvements	74,260
Ottumwa	Interceptor	537,760
Parkersburg	Impvts. & Addns.	14,979
Sanborn	New Plant	128,839
Sheldon	Interceptor	18,184
Sioux City	Interceptors	173,820
Solon	New Plant	39,749
West Branch	Alterations	42,569
KANSAS		
Caney	New Plant	139,374
Derby	New Plant	173,452
Fort Scott	New Plant	140,000
Frankfort	Lagoon	66,557
Great Bend	New Plant	329,000
Hanover	New Plant	41,673
Haysville	Enlargement	24,900
Haysville	Addn. & Impvts.	44,202
Hoisington	Enlargement	63,900
Howard	New Plant	76,628
Jayhauk Imp. Dist. Bedgwick Co.	New Plant	40,590
Lawrence	New Plant	1,048,700
Liberal	Additions	93,000
Marquette	New Plant	26,789
Marysville	New Plant	175,416
Marysville	Outfall	40,914
Medicine Lodge	New Plant	158,381
Minneapolis	New Plant	43,109

STATE AND PLACE**	TYPE OF CONSTRUCTION	COST
KANSAS (Cont.)		
Pawnee Rock	New Plant	$ 43,290
Rolla	New Plant	27,055
Scandia	New Plant	38,366
Sedgwich Co.-Sunflower Imp. Dist.	Enlargement	37,840
Sedgwick	New Plant	98,717
Solomon	New Plant	56,725
Topeka-Oakland Plt.	Enlargement	593,742
Topeka-Shunganungo S.D.	Interceptors	1,334,592
Turon	New Plant	63,767
Valley Center	Addition	83,700
Westlink Imp. Dist. Sedgwick Co.	New Plant	480,513
Wichita-Purcells 9th Addn.	Addition	131,204
Winfield-State Training School	Plant repairs	7,930
KENTUCKY		
Cambellsville	Plant addition	141,000
Frankfort	New Plant	401,700
Frankfort	Interceptors & Purp Sta.	831,849
Louisville & Jefferson Co. Metr. S. D.	Interceptor	136,527
Louisville & Jefferson Co. Metr. S. D.	Interceptor	237,275
Nicholas Co. T. B.Hosp.	New Plant	22,340
Owenton	Plant Alterations	14,946
Paducah	New Plant	840,500
Paducah	Interceptors	275,000
Valley Sta.-Villa Ana Sub-Div.	New Plant	96,360
Valley Village Sub.-Div.	New Plant	195,519
Whitesburg	Plant Additions	61,400
Whitesburg	Interceptors	90,886
LOUISIANA		
East La. State Hosp.	2 New Plants	444,033
Grambling College	New Plant	196,750
Homer- S. D. #1	Additions	214,128
Jeanerette	Addition	93,857
Jonesboro	Addition	304,755
Lake Charles	Addition	55,973
Lake Charles Plt.#2	New Plant	554,666
Metairie- East & West Side H. S.	2 New Plants	13,466
Oakdale	New Plant	171,730
St. Martinville	Additions	252,239

STATE AND PLACE **	TYPE OF CONSTRUCTION	COST
MAINE		
Bangor	Improvements	11,259
Portland to Augusta (Maine Turnpike)	4 Plants	295,000
MARYLAND		
Baltimore County	Interceptor	166,107
Baltimore Co.-Back River Plt.	Alterations	104,890
Baltimore Co.-Ridge House School	New Plant	7,598
Cambridge	Outfall	66,631
Cottage City	Outfall	47,982
Crisfield-McCready Memorial Hosp.	New Plant	16,981
Crownsville-Md. State Hospital	Additions	19[illegible],617
Cumberland	New Plant	1,53[illegible],006
District Training School-Fort George Meade	Additions	45,987
La Plata	New Plant	128,946
Prince George Co. Andrews A. F. Base	Enlargement	93,719
Reisterstown	New Plant	126,165
Salisbury (SHED. B.&C.)	New Plant	1,152,927
MASSACHUSETTS		
Clinton	New Plant	684,000
East Longmeadow	Interceptors	12,345
North Adams	Improvements	15,890
Pondville State Hosp.	Improvements	23,400
Waltham	Interceptors	307,000
Wellesley-Dover & Natick	Interceptor	680,745
Worcester	Improvements	93,840
MICHIGAN		
Albion	New Plant	442,170
Albion	Interceptor	3,714
Bad Axe	Replacement	196,340
Big Rapids	Interceptor	279,733
Birmingham	Addition	150,000
Carrollton Twp. (Saginaw Co.)	New Plant	240,000
Cass City	Addition	149,780
Cedar Springs	Improvement	12,000
Charlotte	Interceptor	53,735
Coldwater State Home & Training School	Addns. & Alts.	66,140

STATE AND PLACE**	TYPE OF CONSTRUCTION	COST
MICHIGAN (Cont.)		
Detroit	Enlargement	$2,248,000
Detroit	Interceptor	7,927,000
Essexville	New Plant	203,000
Grosse Ile	New Plant	200,000***
Harbor Beach	New Plant	236,582
Harbor Beach	Interceptor	148,826
Oakland-Kendallwood Sub-Division	New Plant	162,500
St. Louis	Interceptors	78,390
St. Louis	New Plant	184,828
St. Louis	Interceptors	80,890
Sandusky	New Plant	251,900
Sandusky	Interceptor	272,176
MINNESOTA		
Albert Lea	Addn. & Enlarge.	917,461
Alexandria	Plt. Alterations	63,000
Bemidji	Alterations	394,200
Breckenridge	Lagoon	311,500
Brooklyn Center	Interceptor	312,196
Butterfield	New Plant	108,720
Crystal	Interceptors	1,206,362
Fairibault	New Plant	909,003
Hastings	New Plant	205,000
Hoyt Lakes	New Plant	578,000
Jasper	New Plant	216,000
Kimball	New Plant	98,600
Litchfield	Improvements	30,527
Luverne	New Plant	218,150
Madelia	New Plant	157,000
Mineral Springs- San. Cannon Falls	Improvements	38,445
Minnewashta Grade Sch.	Plt. Addition	16,128
Morgan	New Plant	106,940
St. James	Alterations	293,000
Wadena	Enlargement	240,300
Waseca	Outfall	30,032
MISSISSIPPI		
Crystal Springs	New Plant	148,544
MISSOURI		
Adrian	Lagoon	8,050
Ash Grove	New Plant	51,589
Branson	New Plant	146,926
Charleston	New Plant	210,000
House Springs - Northwest High School	New Plant	15,940
Jasper	Outfall	21,000***
Jasper	New Plant	21,000***
MISSOURI (Cont.)		
Kirksville-Thousand Hills State Park	New Plant	$ 29,687
Malden	Additions	165,542
Mid Continent International Airport	New Plant	120,295
Monroe City	New Plant	166,000
Montgomery City	New Plant	23,626
Mountain View	New Plant	47,000
Richmond	New Plant	148,065
St.Charles Co.-U.S. Atomic Energy Comm.	New Plant	44,371
Warrenton	Addition	110,000***
Warrenton	Additions	85,000
MONTANA		
Choteau	Replacement	34,307
Glasgow	Lagoon	47,000
St. Ignatius	Lagoon	12,000***
NEBRASKA		
Doniphan	New Plant	24,642
Ewing	New Plant	20,500
Greenwood	Lagoon	4,500
Henderson	New Plant	72,072
Lodgepole	Lagoon	11,950
Mead	Impvts. & Addn.	25,850
Platte Center	New Plant	26,411
Sidney	Addn. & Impvts.	115,500
Waverly	Stabilization Pond	10,399
NEVADA		
Blue Diamond	Lagoons	45,000
Clark Co.- U.S. Army Cantonment	New Plant	3,000***
Lady Luck Hotel	New Plant	75,000
Lake Tahoe-Gateway-Harrah's Club	New Plant	1,000***
Las Vegas	Addns. & Alts.	73,300
Las Vegas	New Plant	862,934
Las Vegas	Improvements	80,000
Las Vegas-Dunes Hotel	New Plant	75,000
Las Vegas-Royal Nev. & Stardust Hotels	New Plant	20,000***
Tropicana Hotel	New Plant	50,000
Yerington	New Plant (plus Oxidation Lagoons)	64,647
NEW HAMPSHIRE		
Franconia-Cannon Mt.	New Plant	53,168
Keene	Impvts. & Addn.	307,780

STATE AND PLACE**	TYPE OF CONSTRUCTION	COST
NEW JERSEY		
Asbury Park	Alts. & Addn.	$ 345,437
Atlantic City	Addition	650,000
Bordentown-N.J. State Reformatory	Enlargement	23,855
Butler	Addns. & Alts.	114,409
Camp Charles Wood	Improvements	11,113
Collingswood	Addition	131,990
Cresskill	Interceptors	84,602
Delaware Twp.-Camden Co.	New Plant	114,000
Delaware Twp.-Camden Co.	Additions	171,495
Elizabeth	Interceptors	1,535,928
Elizabeth	Interceptor	534,626
Fort Lee	Interceptors	226,397
Long Beach Twp.	New Plant	772,788
Magnolia	New Plant	166,929
Middlesex Co. Sew.Auth.	New Plant	4,166,468
Middlesex Co. Sew.Auth.	Interceptor & Outfall	5,116,251
Middlesex Co. Sew.Auth.	Interceptor	6,615,433
Middlesex Co. Sew.Auth.	Interceptor	1,172,364
Penns Grove	New Plant	297,624
Plainfield-Union Joint Meeting Plant	Outfall	486,604
Red Bank	Replacement	334,325
Riverton	New Plant	191,123
Woodstown	Enlargement	115,442
NEW MEXICO		
Farmington	Enlargement	270,800
Gallup	New Plant	155,588
Texico	New Plant	14,000
NEW YORK		
Attica	Addition	159,977
Baldwinsville	Addition	58,609
Brookhaven-Port Jefferson S.D.	New Plant	268,501
Canton-St.Lawrence University	Improvement	14,330
Cheektowaga S.D.#5	Addition	265,223
East Greenbush	Interceptors	829,941
Freeport	Enlarg. & Imprvts.	370,444
Glen Cove	New Plant	652,732
Greece	Additions	284,832
Guilderland Center-Elementary School	New Plant	19,000
Hannibal Central Sch.	Improvements	21,923
Henrietta	New Plant	100,700
Huntington	Addition	450,000
Jamestown	Replace Interceptor	$ 372,210
Kirkland-Hamilton College S.D.	Extension	75,108
Lawrence	Improvements	7,425
Middletown Twp. (Margaretville-Arkville Treat Plt.)	New Plant	1,079,287
Newburgh-Stewart Air Force Base	Addition	23,765
New York City-Bowery Bay Plt.	Interceptor	794,377
New York City-Bklyn,Coney Island	Improvements Plt.	95,428
New York City-Bklyn,Owls Head	Additions Plt.	128,000
New York City-Bklyn,Tide Gate	Improvements Plt.	128,831
New York City-Bklyn,Coney Island	Improvement Plt.	8,300
New York City-Fort Hamilton	Interceptor	345,705
New York City-Hart Island	Improvements	5,984
New York City- L.I. City-Bowery Bay Sewage Works	Interceptor Extn.	1,458,515
New York City-Port Richmond,S.I.	Interceptor	344,284
New York City-Tallmans Island	Improvements	5,200
New York City-Wards Island Plt.	Addition	12,755
New York State Thruway Authority-Port Byron & Warners	New Plants	407,609
New York State Thruway-Coxsackie	New Plant	114,624
New York State Thruway-Sloatsburg	New Plant	177,783
New York State Thruway-Plattekill & Modena	2 New Plants	216,690
New York State Thruway-Victor & Westmoreland	2 New Plants	186,741
Ogdensburg-St.Lawrence State Hosp.	New Plant	241,873
Schoharie near Syracuse	New Plant	43,262
Schoharie	Interceptor	315,000

STATE AND PLACE**	TYPE OF CONSTRUCTION	COST
NEW YORK (Cont.)		
Tonawanda	Interceptor	$ 49,810
Victor	New Plant	210,204
Westchester County	Interceptor	479,815
Westchester Co. - New Rochelle Plant	Interceptor	432,700
NORTH CAROLINA		
Monroe	Improvements	104,295
Raleigh	Additions	1,890,962
Rocky Mount	Additions	73,251
Rocky Mount-East Car. Training School	New Plant	19,035
Seymour Johnson Air Force Base-Goldsboro	Rehabilitation	86,534
Taylorsville	New Plant	103,083
Wilkes Co.-West High School	New Plant	4,274
Winston Salem	Outfall Impvts.	124,962
NORTH DAKOTA		
Devils Lake	New Plant	35,000
Dunseith	Lagoon	2,200
Fordville	New Plant	3,095
Hasenton	Lagoon	2,600
Minot-Air Force Base	Lagoon	38,000***
Neche	New Plant	9,840
New Salem	Lagoon	9,158
Park River	Replacement	140,700
Plaza	New Plant	12,000
Scranton	New Plant	2,000
Stanley	New Plant	6,000
OHIO		
Akron-Botzum Plant	Improvements	3,831,368
Bucyrus	Additions	15,512
Chargin Falls	New Plant (Replacement)	192,620
Cincinnati-Millcreek Plant	New Plant	1,194,254
Cincinnati-Millcreek Plant	New Plant	1,662,123
Cleveland-Westerly Plant	Additions	810,083
Columbus	Improvements	20,983
Conneaut	New Plant	563,886
Corland-North & South Plant	New Plant (Replacing 2 Plants)	81,000
OHIO (Cont.)		
Defiance	Interceptors	$1,581,000
Defiance	New Plant	729,114
Dover	New Plant	367,873
Eastlake-Eaton Homes Sub-Div. Lorain Co.	New Plant	25,500
Englewood	Alterations	66,000
Fernald-U.S. Atomic Energy Comm.	Expansion	10,500
Franklin Co.-S.D.#5	New Plant	197,000
Granville	Improvement	36,643
Grove City	Alterations & Repairs	37,641
Grove City	Addnl. Interceptors	21,339
Jackson Center	Expansion	61,000
Killbuck	New Plant	36,856
Marysville	New Plant	26,316
Middletown	Partial Plant	244,744
Montgomery Co.-Bear Creek S. D.	New Plant	1,193,165
New Carlisle	Addition	239,075
New Richmond	New Plant	140,000
Norwalk	Improvements	123,840
Orient State Hosp.	New Plant	112,800
Painesville	New Plant	182,430
Pleasant Hill	New Plant	683,278
Portsmouth	New Plant	63,265
Portsmouth	Interceptors	995,412
Ravenna	Addition	23,900
Richmond Hts.-Mayfield Highland Hts.S.D.#3	Interceptors	268,578
Salem	New Plant	587,066
Salem	Interceptors	553,224
Sidney	Interceptors	68,047
Sidney	New Plant	90,000
Spencerville	New Plant	497,000
Sylvania	Interceptors	162,199
Tiffin	New Plant	108,143
Urbana	New Plant	818,075
Van Wert	Enlargement	326,454
Waverly	New Plant	284,863
Waverly	New Plant	336,000
Wellsville	New Plant	290,105
Willard	Interceptor & Pump Sta.	336,296
		18,000

STATE AND PLACE**	TYPE OF CONSTRUCTION	COST
OKLAHOMA		
Bristow	Additions	$ 41,860
Clarland Acres	New Plant	25,000
Coalgate	New Plant	48,956
Dewey	New Plant	110,000
Guthrie	New Plant	180,000
Harrah	New Plant	26,500
Hinton	New Plant	17,730
Konawa	Improvements	40,000
Poteau	Enlargement	48,000
Pryor Creek	Improvements	25,000
Sand Springs	New Plant	173,513
Sequoyah School	Lagoons	35,000
Sperry	New Plant	90,000
Stilwell	New Plant	115,951
Tahlequah	Improvements	70,894
Tulsa	Interceptor	135,377
Wynnewood	New Plant	270,000
Wynnewood	Enlargement	56,475
OREGON		
Brookford	New Plant	49,500
Bunker Hill S. D.	New Plant	53,645
Canby	New Plant	39,308
Columbia S. D.	New Plant	55,000
Enterprise	Replacement	129,964
Forest Grove	Outfall	31,863
Hines	Lagoon	38,000
Klamath Falls-Airport	Improvements	21,694
Newport	Replacement	4,628
Oak Grove - School	New Plant	6,565
Portland	Interceptor	14,710
Portland	Interceptor	132,945
Southwood Park	New Plant	46,500
Sutherlin	New Plant	139,292
West Linn	New Plant	53,365
PENNSYLVANIA		
Avis Boro	New Plant	42,968
Bucks Co.-AAA Site	New Plant	91,821
Camp Hill	Interceptor	25,408
Churchill Boro	Interceptor	122,123
Conway	New Plant	206,379
Danville	Interceptor Replace	40,220
East Penns Boro Twp. Auth.	New Plant	74,748
Grove City	Improvement	116,337
Lancaster	Interceptor	92,470
Luzerne Co.-Institution for Defective Delinquents	New Plant	201,960
PENNSYLVANIA (Cont.)		
Marcus Hook	Pump Sta.-Treat. & Interceptors	$ 157,189
Mercersburg	New Plant	146,082
Middletown-Olmstead Air Force Base	New Plant	328,574
Milton	New Plant	391,737
Milton	Interceptor	103,548
Milton	New Plant	575,285
Northampton	Addition	261,728
Perryopolis Boro	New Plant	132,493
Philadelphia	Interceptors	39,796
Philadelphia	Interceptors	54,308
Philadelphia-Lower Delaware Plt.	Interceptor	770,240
Philadelphia-Schuylkill	Interceptor	998,660
Philadelphia- S.E. & Central Schuylkill Pump Stas.	Alterations	53,980
Philadelphia- S.E. Plt.	Improvements	166,126
Philadelphia- S. E. Plt.	Improvements	40,850
Philadelphia- S. W. Plt.	Improvements	116,137
Philadelphia- S. E. Plt.	Improvements	92,103
Philadelphia- S. E. & S.W. Plts.	Improvements	232,030
Philadelphia- S.W. Plt.	Improvements	155,360
Philadelphia	Interceptor	95,161
Pleasantville	Addition	32,000
Pleasantville	Additions	32,395
Polk-State School	Improvements	295,012
Quakertown	Additions	183,985
Selinsgrove	Repairs	3,500
Slippery Rock	Interceptors	158,263
Slippery Rock	Alts. & Addns.	181,164
Sunbury	Interceptor	223,450
Upper Gwynedd Twp.	Interceptors	40,000
Wescosville-Lehigh County Home	New Plant	99,631
West Chester-Goose Cr. & Taylor Run Plt.	Plant Addn.	59,795
RHODE ISLAND		
Blackstone Valley S.D	Interceptor	649,133
Blackstone Valley S.D.	Interceptor	924,090
East Greenwich	Enlarg. & Addn.	218,397
Woonsocket	Repairs	36,000

STATE AND PLACE**	TYPE OF CONSTRUCTION	COST
SOUTH CAROLINA		
Charleston Air Force Base	Addition	$ 109,886
Greenville	Alts. & Impvts.	1,044,484
Greenville	Interceptors	385,245
Myrtle Beach Air Force Base	New Plant	88,030
Pageland	Improvements	14,090
Spartanburg-Lawson Fork & Fairforest Cr.	Plt. Improvements	141,134
Timmonsville	New Plant	35,693
SOUTH DAKOTA		
Beresford	New Plant	42,068
Bonesteel	Lagoon	10,625
Burke	Lagoon	2,649
Clear Lake	Lagoon	14,571
Ellsworth Air Force Base	Plt. Addn.	1,993
Freeman	Lagoon	12,225
Gettysburg	Lagoon	21,960
Hayti	Lagoon	17,670
Isabel	New Plant	7,000
Murdo	Lagoon	14,000
Pollock	New Plant	9,172
Redfield	Lagoon	41,890
Sisseton	Lagoon	37,639
Tabor	Lagoon	6,200***
Valley Springs	Lagoon	21,800
TENNESSEE		
Bells	New Plant	160,000
Bolivar	New Plant	144,930
Chattanooga	Interceptors	287,710
Chattanooga	Interceptors	3,879,175
Cleveland	Improvements	368,240
Dyer	New Plant	86,590
Gleason	New Plant	69,404
Johnson City	New Plant	542,380
Kingston	New Plant	300,000
Kingsport	New Plant	853,572
Kingsport	Outfall & Interceptors	182,548
Livingston	New Plant	97,892
Maryville	New Plant	348,956
Maryville	Outfall	323,154
Memphis	Interceptor	327,311
Memphis- Wolf River Sewer System	Interceptors	473,025
Nashville-Baptist Theological Seminary -	New Plant	26,667
Smyrna	New Plant	113,082
South Clinton - 2 Schs.	2 Plants	36,900
Waverly	New Plant	116,500

STATE AND PLACE**	TYPE OF CONSTRUCTION	COST
TEXAS		
Abilene	Interceptor	$ 85,520
Abilene Air Base	Interceptor	109,191
Arlington	Outfall	167,064
Bridge City	New Plant	106,079
Corpus Christi	Interceptor	492,497
Corpus Christi-Broadway Plt.	Enlargement	974,150
Daingerfield	Addition	14,500
Fort Worth	Interceptor	10,500
Fort Worth-Village Creek	Interceptor & Outfall	253,919
Houston-Pleasantville Plant	Addns. & Alts.	54,797
McGregor	New Plant	71,532
McKinney	New Plant	94,900
McKinney	Interceptors	103,771
Needville	New Plant	41,600
Nordheim	New Plant	65,769
Omaha	New Plant	67,583
Richardson	Improvements	66,975
San Antonio	Improvements	373,776
San Antonio	Improvements	349,053
Terrell	New Plant	127,054
Vidor	New Plant	127,515
Waco	Interceptor	164,089
Wolfforth	New Plant	15,000
UTAH		
Brigham City	Outfall-South	167,985
Brigham City	Outfall-North	35,422
Brigham City	New Plant	225,000
Lehi	New Plant	191,000
Lehi	Outfall & Interep.	188,328***
Pleasant Grove	New Plant	136,879
Richfield	New Plant	137,161
Springville	New Plant	229,164
Tooele	New Plant	227,955
VERMONT		
St.Albans Air Base	Improvements	40,600
VIRGINIA		
Aragone Village	New Plant	200,000
Charlottesville	New Plant	586,000
Chesterfield Co. - Carver School	New Plant	12,974
Chesterfield Co. - Midlothian School	New Plant	36,566
Fairfax Co.	Interceptors	231,294
Fairfax Co.-Dogue Cr.	New Plant	469,675
Fairfax Co.-Little Hunting Creek	New Plant	534,275

STATE AND PLACE**	TYPE OF CONSTRUCTION	COST
VIRGINIA (Cont.)		
Fork Union-Military Academy	New Plant	$ 34,990
Fredericksburg	New Plant	445,550
Hilton School	New Plant	17,438
Kempsville	New Plant	14,000
Leesburg	Improvements	56,500
Lexington-Va. Military Institute	Outfall	4,331
McLean-Pimmitt Run Plt.	New Plant	681,700
Petersburg	New Plant	849,740
Petersburg	Interceptor	293,062
Prince William Co.-Occoquan	New Plant	169,360
Prince William Co.-Occoquan	Outfall	64,968
Richmond	Interceptors	520,975(1954)
Richmond-Henrico Co.-Turnpike Elementary School	New Plant	15,941
Richmond-Quartermaster Depot	New Plant	54,089
Roanoke County	Interceptors	507,000
Vienna	New Plant	106,798
Virginia Beach-Linkhorn Park Elem. School	New Plant	16,550
Warwick-Lee Hall School & Community	New Plant	20,478
Waynesboro	Interceptor & Outfall	117,926
WASHINGTON		
Benton City	New Plant	43,349
Davenport	Additions	5,750
Fort Lewis-U.S.A.	New Plant	457,861
Great Falls-Air Force Base	Improvements	13,200
Kalama	New Plant	73,090
Kalama	Interceptor	111,203
King Co.-S.W. Sub. S. D.	New Plant	532,632
King Co.-S.W.Sub. S.D.	Outfall	45,947
Kirkland	Outfall	5,670
Moses Lake	Enlargements	257,187
Othello Air Force Sta.	Lagoon	12,814
Tumwater	Interceptor	109,620
Warden	Lagoon	11,191
Waterville	Lagoon	25,000
Yakima	Interceptor	84,724
WEST VIRGINIA		
Charleston	Interceptor	396,520
Charleston	Plant Impvts.	40,900
Charleston	Interceptor	144,170
Parkersburg	New Plant &Inter.	3,232,796
Parkersburg	Interceptor	94,455
Point Pleasant	New Plant	150,000
Princeton	New Plant Phase 2	130,751
Wheeling	Interceptor	1,445,695
WISCONSIN		
Almena	New Plant	13,893
Arcadia	Replacement	73,488
Blue River	New Plant	26,500
Cuba City	New Plant	110,218
Fontana	New Plant	149,500
Fountain City	New Plant	122,438
Germantown	New Plant	89,991
Green Bay	Additions	16,207
Green Lake-American Baptist Assembly	New Plant	45,683
Gresham	New Plant	19,868
Holcombe S.D.#1	New Plant	19,000
Horicon	Replacement	168,843
Junction City	New Plant	4,500
Madison	Interceptor	131,344
Madison Metropolitan S. D.	Interceptors	371,745
Merrill	Interceptor	35,618
Neillsville	New Plant	178,384
New [illegible]burn	Additions	24,578
N[illegible]a	New Plant	5,465
O[illegible]field	New Plant	93,928
Port Washington	New Plant	325,482
Pulaski	Addition	14,000
Rothschild	New Plant	116,000
Spooner	Replacement	82,001
Stratford	New Plant	64,200
Waunakee	New Plant	84,000
Waupaca	Additions	99,683
WYOMING		
Osage	Lagoon	1,500***
Pavillion	Lagoon	1,500***

Totals for U. S.	371	New Plants	
	378	Other	
	749	Total	$200,862,000

** Includes incorporated or unicorporated municipalities; other legal bodies as Sanitary Districts, counties, towns; significant institutions, resorts, recreational centers, and other population centers.

*** Estimated cost.

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